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the tube respectively represent the phase and amplitude of the complex signal to be transmitted. The amplification characteristic of the excitation device remains linear for low amplitudes of the signal to be transmitted and operates under saturated conditions when the amplitude of the signal to be transmitted exceeds a given threshold value, so that the amplification characteristic of the transmitter as a whole remains linear independently of the amplitude of the signal to be transmitted. Such a transmitter may find particular application as a short wave transmitter.

REMARKS

Favorable consideration of this application, as presently amended, is respectfully requested.

The present Preliminary Amendment is submitted to place the above-identified application in more proper format under United States practice.

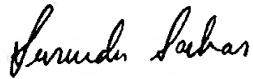
By the present Preliminary Amendment the claims have been amended to no longer recite any reference numerals or multiple dependencies, and to make other minor clarifications. The subject matter of the cancelled multiple dependencies is also now set forth in new dependent Claim 4.

The Abstract has been amended by the present response to be in more proper format under United States practice.

The present application is believed to be in condition for a full and thorough examination on the merits. An early and favorable consideration of the present application is hereby respectfully requested.

Respectfully submitted,

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Serial No:

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11-30-2001IN THE CLAIMS

Please amend the claims as follows:

--1. (Amended) Digital signals radio broadcasting transmitter comprising a power tube [(1)] in which the grid is excited by a variable phase signal through an excitation device [(2)] and in which the anode is amplitude modulated by the output signal from a modulator [(3)], the phase and amplitude of signals applied on the grid and anode of the tube [(1)] respectively being represented by the phase and amplitude of a complex signal to be transmitted, [characterized in that] wherein the excitation device [(2)] has a linear amplification characteristic for low amplitudes of the signal to be transmitted and operates under saturated conditions when the amplitude of the signal to be transmitted exceeds a determined threshold value, so that the amplification characteristic of the transmitter as a whole remains linear independently of the amplitude of the signal to be transmitted.

2. (Amended) Transmitter according to claim 1, [characterized in that it comprises] further comprising a control device [(4)] to apply a low and approximately constant polarization voltage to the anode of the tube for low amplitude signals to be transmitted with a value below a given threshold value, and to modulate the anode voltage proportionally to the modulus of the signal to be transmitted at signal amplitudes to be transmitted higher than the determined threshold value.

3. (Amended) Transmitter according to [any one of claims 1 and 2, characterized in that] claim 1, wherein the tube [(1)] operates in linear amplification mode for which it is

conducting when the amplitude of the signal to be transmitted is below the given threshold value and operates as a switch when the amplitude of the signal to be transmitted is higher than the given threshold value.

Claim 4 (New).--

IN THE ABSTRACT

Please amend the Abstract of the Disclosure as follows:

--ABSTRACT OF THE DISCLOSURE

[Short wave high efficiency radio broadcasting
transmitter for digital transmissions]

A short wave high efficiency radio broadcasting transmitter for digital transmissions.

The transmitter [comprises] ~~includes~~ a power tube [(1)] in which the grid is excited by a variable phase signal through an excitation device [(2)] and in which the anode is amplitude modulated by the output signal from a modulator [(3)]. The phase and amplitude signals applied to the grid and anode of the tube [(1)] respectively represent[ing] the phase and amplitude of the complex signal to be transmitted. The amplification characteristic of the excitation device [(2)] remains linear for low amplitudes of the signal to be transmitted and operates under saturated conditions when the amplitude of the signal to be transmitted exceeds a given threshold value, so that the amplification characteristic of the transmitter as a whole remains linear independently of the amplitude of the signal to be transmitted. Such a transmitter may find particular [Applications:] application as a short wave [transmitters] transmitter.

[Figure 3.]--